AMENDMENTS TO SPECIFICATION

Please amend paragraphs 9, 32, 35, 36, 48, and 51, which appear at pages 3, 8, 9, 10, 15 and 16 of the specification respectively, in accordance with the following replacement paragraph:

[0009] Accordingly, in one aspect of the present invention, a device insertable into a structure having a lumen is provided that includes a first housing, at least one functional element connected to the first housing, the functional element for use during a minimal access procedure, and a securing element for removably securing the insertable device to or against a wall of a structure having a lumen. In one embodiment, the at least one functional element is movably connected to the first housing, and the device includes at least one actuating element connected to the first housing and the functional element. The actuating element is generally capable of moving the functional element in relation to the first housing in at least one degree of freedom. The securing element may be a needle protruding from the imaging device essentially inline with the elongated axis of the device, a magnet, a clamp, an adhesive, etc. In one embodiment, the insertable device is ~~adopted~~ adapted for use in connection with minimal access surgical procedures. In this instance, the securing element includes a needle protruding from the insertable device essentially inline with the elongated axis of the device. The insertable device is capable therewith of being removably secured against a subject's abdominal wall by inserting the needle into tissue of the abdominal wall.

[0032] In one aspect of the present invention, a single or multi-functional element, insertable device is provided that can be inserted and temporarily placed or implanted into a structure having a lumen or hollow space. The structure having a lumen may be the anatomical structure of a subject, such as the subject's heart, lungs, esophagus, stomach, intestines, thoracic cavity, abdominal cavity, blood vessels, etc., and non-anatomical structure, such as tanks, pipes, confined spaces, rooms, etc. In one embodiment, the present invention is ~~adopted~~ adapted to be inserted and temporarily implanted into a subject's abdominal cavity to provide therewith images of a surgical site for use in connection with minimally invasive surgical procedures, such as laparascopic procedures. The subject may be any animal, including amphibians, birds, fish, mammals, and marsupials.

[0035] Where the functional element 106 is a camera element, the type of camera system adapted for the insertable device 100 may vary as well, however, to facilitate use of

the device for minimal access procedures, e.g., minimal access imaging, the camera system selected for the device 100 must accommodate the compact dimensions of the device 100 as dictated by the dimensions of the opening though which access into the structure with a lumen is provided. Where the device 100 is ~~adopted~~ adapted for use in connection with minimally invasive surgical procedures, for instance, the dimensions of the device 100 will generally be dictated by the size of the port or trocar that provides access to the site, e.g., a port about 20 mm in diameter. A compact size with respect to the camera portion of the device 100 may be achieved, for example, with CMOS or CCD sensor chip based cameras that consist of relatively compact elements that may be located remote from each other. In one embodiment, the camera is a chip based camera with remote camera elements, such as a remote CCD image or CMOS image sensor assemblies, which allow the image sensing portion of the camera that is introduced into the surgical site to be movable in relation to the rest of camera circuitry. In another embodiment, the camera includes a 8mm round CCD color image sensor mounted essentially perpendicular to a 17 mm long driver board , and the driver board is electrically connected to a camera control unit ("CCU") remote from the insertable device 100.

[0036] Various types and numbers of actuating elements 108 or actuators for moving the functional element in relation to the housing may be used to achieve the desired degree of freedom with regard to the movement of the functional element 106, such as piezoelectric actuators, pneumatic actuators, solenoids, shape memory alloy actuators, linear motors, motors producing rotational movement, motors producing rotational movement ~~adopted~~ adapted to provide linear movement, etc. The type of actuating element 108 and the number of actuating elements 108 will vary depending on the design constraints of the insertable device 100, e.g., the dimensions as dictated by the size of the access port or opening, the degrees of freedom the functional element or elements 106 are intended to move, the number of functional element, etc. In one embodiment, at least one of the actuating elements 108 comprises a brushless DC motor producing sufficient torque to produce the desired movement in the functional element 106. The DC motor may further be connected to a lead screw which when rotated can translate a shuttle or carriage 135 in both directions along the axis of the lead screw to produce linear motion and with a bevel screw or worm gear assembly to redirect the rotational movement produced by the motor. In one embodiment, the motor runs on 6 volts, is about 27mm long, and has a diameter of about 5mm.

[0048] Referring to FIG. 7, a minimal access system, according to one embodiment, includes at least one insertable device 100 and a driving device ~~202~~ 220. The driving device ~~202~~ 220 is generally a device, which provides the driving signal to produce the desired functionality to the insertable device 100, such as movement in the relevant degrees of freedom of motion, imaging, power, energy for cauterizing, coagulation, ablation, etc. In one embodiment, the driving device ~~202~~ 220 includes at least one controller ~~204~~ (not shown) to drive at least one motor associated with the device 100 and to reproduce the images of the site of interest. In one embodiment, the system includes a plurality of insertable devices 100 communicatively connected to the driving device with each of the devices 100 providing a different functionality, such as one of imaging, light, ablation, coagulation, and ablation.

[0051] The driving device ~~202~~ 220 generally provides control remote from the insertable device 100, e.g., the driving device ~~202~~ 220 is located exterior to the body whereas the insertable device 100 may be implanted to provide the relevant functionality with respect to minimal access procedures. The driving device ~~202~~ 220 may interface with the device 100 with cables, such as a cable 2 m long and 1-12 mm in diameter. The cable generally comprises a plurality of wires that carry power, energy, video, and/or the drive signal to control the elements of the device 100. Alternatively, the video and/or the drive signal may be wirelessly transmitted to the device to reduce the number of wires necessary to operate the device 100. Power may also be provided with a battery within the driving device 100 to eliminate cabling altogether. For extended use the battery may be charged or maintained with wireless energy transducers.